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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,383	05/10/2001	Hiroshi Mori	AD6588 US CNT	5612

23906 7590 08/29/2002

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WILMINGTON, DE 19805

EXAMINER

RAJGURU, UMAKANT K

ART UNIT	PAPER NUMBER
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1711

17

DATE MAILED: 08/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

Applicant(s)

Examiner

Group Art Unit

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

### Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

### Status

☒ Responsive to communication(s) filed on May 22, 2002 (paper no 6)  
This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

- ☒ Claim(s) 1-17, 28, 29 and 32-36 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-17, 28, 29 and 32-36 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

### Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).
- \*Certified copies not received: \_\_\_\_\_

### Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) \_\_\_\_\_
- ☐ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

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1. A amendment (paper no. 6) has been filed on May 20, 2002.
2. Claims under examination are now 1-17, 28, 29 and 32-36.
3. Rejection of the claims 1-17, 28, 29 and 32-36 (these being the claims remaining following cancellation of other claims) (see item 3 prior office action, paper no. 5) is now withdrawn following persuasive arguments of the applicants against said rejection.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1-17, 28, 29, & 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gibbs (USP 3406223) in view of Fukumoto et al (USP 5603927) and Shinohara et al (USP 5866671).

*nil* (These references have been cited in earlier office action).

Gibbs discloses stabilized polyoxymethylenes, which are stabilized by mixing a polyoxymethylene with a superpolyamide, a phenolic antioxidant and one or more substituted aliphatic amines (col. 1, line 71 to col. 2, line 3). Suitable amines are shown in col. 2, lines 43-67 and they read on the instantly claimed ones (of instant claim 4).

Gibbs does not mention the  $pK_b$  value in the range of 2-8 of the amino compound (instant claims 1 & 2), relationship of boiling point of amino compound and melting point of polyacetal (instant claim 3) and an organic cyclic compound (instant claim 8).

Fukumoto discloses a material for removing offensive odors, which is especially effective in removing aldehydes (col. 6, lines 1-3). An acid salt of ethyl p-aminobenzoate is a suitable active compound of the said material (col. 9, lines 13-14) (see instant claim 5). According to

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patentee, substances having a basicity constant  $pK_b$  of 9.4 or more are preferred (col. 4, lines 32-33).

Shinohara discloses a resin composition for use in applications requiring low formaldehyde concentration levels. It comprises a polyacetal polymer (abstract) and an organic cyclic compound with active imino groups (col. 3, lines 43-60). Few additives like lubricant, antioxidant etc. can be added to this composition (col. 4, line 24 to col. 6, line 56). Molded parts may be formed from this composition (col. 6, lines 57-62). Organic cyclic compound is added at 0.05 to 3.0% by wt (col. 10, lines 32-33).

Therefore it would have been obvious to add the amino compound of Fukumoto as a moiety of choice in the composition of Gibbs and also the cyclic organic compound of Shinohara in order to enhance reduction concentration of formaldehyde generated. Examiner is of the opinion that since prior art discloses the same ingredients as the claimed ones, the prior art composition inherently satisfies the limitations of instant claim 3.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to U.K. Rajguru whose telephone number is 703-308-3224. The examiner can normally be reached on Monday - Friday from 9:30 am to 6:00 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck, can be reached on (703) 308-2462. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

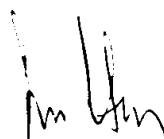
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U. K. Rajguru/mn

August 23, 2002

  
James J. Seidleck  
Supervisory Patent Examiner  
Technology Center 1700